References

Adhikari, A., Rama Mohan Rao, K., Gautam, D. and Chaulagain H., "Seismic Vulnerability and Retrofitting Scheme for Low-to-Medium Rise Reinforced Concrete Buildings in Nepal", *Journal of Building Engineering*, v.21, pp.186-199, 2018.

ASCE 41-06, "Seismic rehabilitation of existing buildings", American Society of Civil Engineers, Reston, Virginia, 2006.

Antoniou, S. and Pinho, R., "Advantages and Limitations of Adaptive and Nonadaptive Force-Based Pushover Procedures", *Journal of Earthquake Engineering*, v.8(4), pp.497-522, 2004.

ATC:19, "Seismic Response Modification Factors", Applied Technical Council, California Seismic Safety Commission, Redwood City, California, 1995.

Aswin Prabhu, T., "Seismic Evaluation of 4-Story Reinforced Concrete Structure by Non-Linear Static Pushover Analysis", Bachelor of Technology Thesis, National Institute of Technology, Rourkela, 2013.

Abou-Elfath, H. and Elhout, E., "Evaluating the Response Modification Factors of RC Frames Designed With Different Geometric Configurations", *International Journal of Civil Engineering*, v.16, pp.1699-1711, 2018.

Alguhane, T.M., Khalil, A.H., Fayed, M.N. and Ismail, A.M., "Seismic Assessment of Old Existing RC Buildings with Masonry Infill in Madinah As Per ASCE", *International Journal of Computer and Systems Engineering*, v.9, pp. 52-63, 2015.

Brahmavrathan, D. and Arunkumar, C., "Evaluation of Response Reduction Factor of Irregular Reinforced Concrete Framed Structures" *Indian Journal of Science and Technology*, v.9, pp.1-8, 2016.

Crisafulli, F.J., "Seismic Behavior of Reinforced Concrete Structures With Masonry Infills", Ph.D. Thesis, University of Canterbury, New Zealand, 1997.

Chaulagain, H., Rodrigues, H., Jara, J., Spacone, E. and Varum, H., "Seismic response of current RC buildings in Nepal: A comparative analysis of different design/construction", *Engineering Structures*, v.49, pp.284-294, 2013.

Chaulagain, H., Rodrigues, H., Spacone, E., Guragain, R., Mallik, R. and Varum, H., "A Response Reduction Factor of Irregular RC Buildings in Kathmandu Valley", *Earthquake Engineering and Engineering Vibration*, v.13, pp. 455-470, 2014.

Dumaru, R., Rodrigues, H. and Varum, H., "Comparative Study on The Seismic Performance Assessment of Existing Buildings With and Without Retrofit Strategies", *International Journal of Advanced Structural Engineering*, v.10(4), pp.1-26, 2018.

Dumaru, R., Rodrigues, H., Furtado, A. and Varum, H., "Seismic Vulnerability and Parametric Study on a Bare Frame Building in Nepal", *Frontiers in Built Environment*, v.2, pp.1-15, 2016.

Dixit, M.M., Kumar, S., Catchings, R.D., Suman, K., Sarkar, D. and Sen, M.K., "Seismicity, Faulting, and Structure of the Koyna-Warna Seismic Region, Western India from Local Earthquake Tomography and Hypocenter Locations", *Journal of Geophysical Research: Solid Earth*, v.119(8), pp.6372-6398, 2014.

El-Betar, S.A., "Seismic Vulnerability Evaluation of Existing R.C. Buildings", *Housing and Building National Research Center Journal*, v.14, pp.189-197,2018.

Elnashai, A.S., and Mwafy, A.M., "Overstrength and force reduction factors of multistorey reinforced-concrete buildings", *The Structural Design of Tall Buildings*, v.11, pp. 329-351, 2002.

Federal Emergency Management Agency (FEMA 31), "Handbook for the Seismic Evaluation of Buildings-A Prestandard (FEMA 310)", Washington, 1998.

FEMA, "Quantification of Building Seismic Performance Factors", FEMA P695, Federal Emergency Management agency, Washington, D.C., 2009.

Farghaly, A.A. and Abdallah, A.M., "Evaluation of Seismic Retrofitting Techniques Used in Old Reinforced Concrete Buildings", *IOSR Journal of Engineering*, v.4(6), pp.1-7, 2014.

Goud, S.S. and Pradeep Kumar, R., "Rationalizing Response Reduction Factor (R) for Better Performance of Reinforced Concrete Framed Buildings". National Conference on Recent Research Advances in Civil Engineering, Hyderabad, pp. 1-6, 2014.

Ghobarah, A., "Seismic Assessment of Existing RC Structures", *Progress in Structural Engineering and Materials*, v.2(1), pp.60-71, 2000.

Ghobarah, A., "On Drift Limits Associated with Different Damage Levels," Proceedings of International Workshop on Performance-Based Seismic Design, Department of Civil Engineering, McMaster University, pp.1-12, 2004

Gupta, B. and Kunnath, S.K., "Adaptive Spectra-Based Pushover Procedure for Seismic Evaluation of Structures", *Earthquake Spectra*, v.16(2), pp.367-391, 2000.

Gunay, M.S. and Sucuoglu, H., "A Comparative Evaluation of Performance-Based Seismic Assessment Procedures", 13th World Conference on Earthquake Engineering, Canada, pp. 1-15, 2014.

Gautam, D., Rodrigues, H., Bhetwal, K.K., Neupane, P. and Sanada, Y., "Common Structural and Construction Deficiencies of Nepalese Buildings. *Innovative Infrastructure Solututions*, v.1, pp.1-18, 2016.

Hassaballa, A.E., Ismaeil, M.A., Adam, F.M., "Seismic Evaluation and Retrofitting of Existing Hospital Building in the Sudan", *Open Journal of Civil Engineering*, v.4, pp.159-172, 2014.

Haldar, P., Singh, Y. and Paul, D.K., "Estimation of Capacity Curve Parameters for Indian RC Buildings with URM Infills", 15th World Conference on Earthquake Engineering, Lisbon, Portugal, pp.1-8, 2012.

Haque, A.B.M. and Alam, M.S., "Preliminary Investigation on the Overstrength and Force Reduction Factors for Industrial Rack Clad Buildings", 11th Canadian Conference on Earthquake Engineering, pp.1-10, 2015.

IS 1893 (Part 1), "Criteria for Earthquake Resistant Design of Structures, Part 1: General Provisions and Buildings", New Delhi, Bureau of Indian Standards, 2016.

IS 1893 (Part 1), "Criteria for Earthquake Resistant Design of Structures, Part 1: General Provisions and Buildings", New Delhi, Bureau of Indian Standards, 2002.

IS 13920, "Ductile Design & Detailing of Reinforced Concrete Structures Subjected to Seismic Force", New Delhi, Bureau of Indian Standards, 2016.

IS 15988, "Seismic evaluation and strengthening of existing reinforced concrete buildings-guidelines", New Delhi, Bureau of Indian Standards, 2013.

IS 456, "Plain and reinforced concrete", Code of practice, New Delhi, Bureau of Indian Standards, 2000.

Izadinia, M., Rahgozar, M.A. and Mohammadrezaei, O., "Response Modification Factor for Steel Moment-Resisting Frames by Different Pushover Analysis Methods", *Journal of Constructional Steel Research*,v.79, pp.83-90, 2012.

Jain, S.K., Murty, C.V.R., Arlekar, J.N., Rajendran. C.P., Rajendran, K. and Sinha, R., "The Chamoli, India, Earthquake of March 29, 1999", EERI Special Earthquake Report, pp.1-8, 1999.

Jain, S.K., "Earthquake Safety in India: Achievements, Challenges and Opportunities", *Bulletin of Earthquake Engineering*, v.14(5), pp.1337-1436, 2016.

Jain, S.K., Mitra, K., Kumar, M. and Shah, M.A., "Proposed Rapid Visual Screening Procedure for Seismic Evaluation of RC-Frame Buildings in India", *Earthquake Spectra*, v.26, pp.709–729, 2010.

Jain, S.K., Murty, C.V.R., Arlekar, J.N., Sinha, R., Goyal, A. and Jain, C.K., "Some Observations on Engineering Aspects of the Jabalpur Earthquake of 22 May 1997", *EERI Special Earthquake Report*, pp.1-8, 1997.

Jain, S.K., Murty, C.V.R., Chandak, N.N., Seeber, L., and Jain, N.K., "The September 29, 1993, M6.4 Killari, Maharashtra, Earthquake in Central India", *EERI Special Earthquake Report*, pp.1-17, 1994.

Kalkan, E. and Kunnath, S.K., "Adaptive Modal Combination Procedure for Nonlinear Static Analysis of Building Structures", *Journal of Structural Engineering ASCE*, v.132(11), pp.1721-1731, 2006.

Kaushik, H.B., Rai, D.C. and Jain S.K., "A Rational Approach to Analytical Modeling of Masonry Infills in Reinforced Concrete Frame Buildings", 14th World Conference on Earthquake Engineering, China, pp. 1-10, 2008.

Mohammad, A.F. and Lodi, S.H., "Assessment of Infill Framed Building Constructed After 2005 Earthquake in Muzzafrabad", 15th World Conference on Earthquake Engineering, Lisbon, Portugal, pp.1-10, 2012.

Murty C.V.R., Rai, D., Kumar, H., Mitra, K., Bose A.K., Kaushik, H.B., Jaiswal A. and Pradeep Kumar, R., "A Methodology for Documenting Housing Typologies in The Moderate-Severe Seismic Zones", 15th World Conference on Earthquake Engineering, lisboa, pp.1-10, 2012.

Murty, C.V.R., Goel, R.K. and Goyal, A., "Reinforced Concrete Structures-2001 Bhuj, India, Earthquake Reconnaissance Report", *Earthquake Spectra*, pp.149-185, 2002.

Mishra, S., "Integrated Rapid Visual Screening of Buildings for Seismic Hazard", TARU Leading Edge Private Ltd", Gurgaon, India, 2014.

Motiani, R., Kunal, J.R., Gahrana, S., Nambiar, A., and Desai, M., "Evaluation of Response Reduction Factor by Pushover Analysis", *International Journal of Structural Engineering*, v.9(2), pp.116-129, 2018.

Maheri, M.R. and Akbari R., "Seismic Behaviour Factor, R, for Steel X-Braced and Knee-Braced RC Buildings", *Engineering Structures*, v.25, pp.1505-1513, 2003.

Mwafy, A.M. and Elnashai, A.S., "Overstrength and Force Reduction Factors of Multistorey Reinforced-Concrete Buildings", *The Structural Design of Tall Buildings*, v.11, pp. 329-351, 2002.

Mohammad, A.F. and Lodi, S.H., "Assessment of infill framed building constructed after 2005 earthquake in Muzzafrabad", Proceedings of the 15th World Conference on Earthquake Engineering, Lisboa, Portugal, pp.1-10, 2012.

Menon, D., Sengupta, A. and Sarkar, P., "Seismic Evaluation and Retrofit of Existing Multi-storeyed Buildings", World Congress on Natural Disaster Mitigation, New Delhi, India, pp.370-378, 2004.

Mapari, A.K. and Ghugal, Y.M., "Seismic Performance of Multi-Storey RC SMRF and OMRF Buildings", *Journal of Structural Engineering*, v.44, pp. 663-672, 2018.

Mander, J.B., Priestley, M.J. and Park, R., "Theoretical stress-strain model for confined concrete", *Journal of Structural Engineering (ASCE)*, v.114(8), pp.1804-1826. 1988.

Menegotto, M., and Pinto, P.E., "Method of analysis for cyclically loaded R.C. plane frames including changes in geometry and non-elastic behavior of elements under combined normal force and bending", Proceedings of the ISBE Symposium on the Resistance and Ultimate Deformability of Structures Acted on by Well Defined Repeated Loads, International Association for Bridge and Structural Engineering (IABSE): Lisbon, Portugal, pp.15-22,1973.

Nishanth, M., Visuvasam, J., Simon, J. and Packiaraj, J.S., "Assessment of Seismic Response Reduction Factor for Moment-Resisting RC Frames", IOP Conference Series:Materials Science and Engineering, pp.1-12, 2017.

Newmark, N.M., and Hall, W.J., "Earthquake Spectra and Design", Earthquake Engineering Research Institute: Berkeley, California, 1982.

NDMA, "Earthquake Disaster Risk Index Report 50 Towns & 1 District in Seismic Zones III, IV and V", National Disaster Management Authority, Government of India, New Delhi, 2019.

NEHRP, "Recommended provisions for seismic regulations for new buildings", Building Seismic Safety Council, Washington, D.C, 1994.

Pradeep Kumar, R. and Murty, C.V.R., "Earthquake Safety of Houses in India:Understanding the Bottlenecks in Implementation", *Indian Concrete Journal*, v.88(9), pp. 51-63, 2014.

Patil, V.S., "Rapid Visual Screening for Seismic Evaluation of an Existing Building", *International Journal for Research in Applied Science & Engineering Technology*", v.6, pp.2350-2356, 2018.

Park, R., "Ductility Evaluation from Laboratory and Analytical Testing", Proceedings of the 9th World Conference on Earthquake Engineering, Japan, pp.605-616, 1988.

Rai, D.C., "Review of Documents on Seismic Evaluation of Existing Buildings", IITK-GSDMA-EQ03-V1.0, Kanpur, India, pp. 1-32, 2005.

Rodrigues, H., Furtado, A., Pouca, N. Varum, H., Barbosa, A.R., "Seismic Assessment of a School Building in Nepal and Analysis of Retrofitting Solutions", *International Journal of Civil Engineering*, pp.1-20, 2018.

Ramaliigeswara Rao, B., "Seismic Activity - Indian Scenario", Buddha Publisher, Hyderabad, 2015.

Sengupta, A.K., Reddy, C.S., Badari Narayanan, V.T. and Asokan, A., "Seismic Analysis and Retrofit of Existing Multistoried Buildings in India – An Overview with A Case Study", 13th World Conference on Earthquake Engineering, Canada, pp.1-15, 2004.

Sadrmomtazi, A., Nsersaeed, H. and Vakhshoor, H., "Seismic Performance Evaluation and Retrofitting Scheme of Damaged Structures in Sarpol Earthquake", 4th International Congress on Engineering, Technology & Applied Sciences, New Zealand-Auckland, pp.1-13, 2019.

Shendkar, M. and Pradeep Kumar, R., "Influence of Opening in Infill on *R* Factor of RC Infilled Frame Structures", *ICI Journal*, v. October-December, pp.1-6, 2018.

Seismosoft:Seismostruct, "A Computer Program for Static and Dynamic Nonlinear Analysis of Framed Structure", SeismoStruct user manual, 2020.

Shendkar, M. and Pradeep Kumar, R., "Response Reduction Factor of RC Framed Structures With Semi-Interlocked Masonry and Unreinforced Masonry Infill", *ICI Journal*, v. Jan-March, pp.24-28, 2018.

Shendkar, M.R., Mandal, S. and Pradeep Kumar, R., "Effect of Lintel Beam on Response Reduction Factor of RC-Infilled Frames", *Current Science*, v.118(7), pp.1077-1086, 2020.

Shendkar, M.R., Mandal, S., Pradeep Kumar, R. and Maiti, P.R., "Response Reduction Factor of RC-Infilled Frames by Using Different Methods", *ICI Journal*, v.April-June, pp.14-23, 2020.

Shendkar, M.R., Kontoni, D-P.N., Mandal, S., Maiti, P.R. and Gautam, D., "Effect of Lintel Beam on Seismic Response of Reinforced Concrete Buildings with Semiinterlocked and Unreinforced Brick Masonry Infills", *Infrastructures*,v.6,pp.1-18, 2021.

Smyrou, E., Blandon, C., Antoniou, S., Pinho, R. and Crisafulli, F., "Implementation and Verification of A Masonry Panel Model for Nonlinear Dynamic Analysis of Infilled RC Frames", *Bulletin of Earthquake Engineering*, v.9, pp.1519–1534, 2011.

Sadrmomtazi A., Nsersaeed, H. and Vakhshoor, H., "Seismic Performance Evaluation and Retrofitting Scheme of Damaged Structures in Sarpol Earthquake", 4th International Congress on Engineering, Technology & Applied Sciences, New Zealand, pp. 1-13, 2019.

Seismic activity in Koyna region annual report, Govt. of Maharashtra, Water Resources Department Koyna, Satara, India, 2018-19.

Saleemuddin M.Z.M. and More, J., "Some Studies on Effects of Response Reduction Factor on Seismic Behavior of RCC Building", *International Journal of Earth Sciences and Engineering*, v.8, pp.388-395, 2015.

Tesfamariam, S. and Saatcioglu, M., "Seismic Risk Assessment of Reinforced Concrete Buildings using Fuzzy Rule Based Modeling", 14th World Conference on Earthquake Engineering. Beijing, China, pp.1-8, 2008.

Tehranizadeh, M., Amirmojahedi, M. and Moshref, A., "Simplified methods for seismic assessment of existing buildings", *Earthquakes and Structures*, v.10, pp.1405-1428, 2016.

Tamboli, K. and Amin, J.A., "Evaluation of Response Reduction Factor and Ductility Factor of RC Braced Frame", *Journal of Materials and Engineering Structures*, v.2, pp.120-129, 2015.

Uang, C.M., "Establishing R and C_d Factors for Building Seismic Provisions", *Journal of Structural Engineering*, v.117(1), pp.19-28, 1991.

Varum,H.,Chaulagain,H.,Rodrigues,H.andSpacone,E.,"Seismic Assessment and Retrof itting of Existing RC Buildings in Kathmandu",Proceedings of 9th International Congr ess about Pathology and Structures Rehabilitation, Brasil, pp.1-14, 2013.

Vielma, J.C., Barbat, A.H., Ugel, R. and Herrera, R.I., "Seismic Evaluation of Low Rise RC Framed Building Designed According to Venezuelan Codes", In Engineering Seismology, Geotechnical and Structural Earthquake Engineering, Intech Open Limited, London, pp.283-300, 2013.

Varsha, B.M. and Vijayananda, M.D. "Analysis, Design and Seismic Retrofitting of an Existing Building", *IJIRSET*, v.7, pp.1-6, 2018.

Whittaker, A., "Seismic Response Modification Factors", *Journal of structural Engineering*, v.125(4), pp.438-444, 1999.

Yassin, M.H.M., "Nonlinear analysis of prestressed concrete structures under monotonic and cyclic loads", Ph.D. Thesis, University of California, Berkeley, USA, 1994.

List of Publications

- Shendkar, M.R., Kontoni, D-P.N., Mandal, S., Maiti, P.R. and Tavasoli, O., "Seismic Evaluation and Retrofit of Reinforced Concrete Buildings with Masonry Infills based on Material Strain Limit Approach", *Shock and Vibration*, Article ID 5536409, pp:1-15, 2021. (SCI & SCOPUS)
- Shendkar, M.R., Kontoni, D-P.N., Isik, E., Mandal, S., Maiti, P.R. and Harirchian, E., "Influence of Masonry Infill on Seismic Design Factors of Reinforced-Concrete Buildings", *Shock and Vibration*, pp:1-15, 2022. (SCI & SCOPUS)
- Shendkar, M.R., Mandal, S. and Pradeep Kumar, R., "Effect of Lintel Beam on Response Reduction Factor of RC-Infilled Frames", *Current Science*, 118(7), pp: 1077-1086, 2020.(SCI & SCOPUS)
- Shendkar, M.R., Kontoni, D-P.N., Pradeep Kumar, R., Farghaly, A., Mandal, S. and Maiti, P.R., "A Refined Procedure for the Seismic Evaluation and Retrofit of Reinforced Concrete Buildings". *Current Science*, 2022. (SCI & SCOPUS)- Accepted
- Shendkar, M.R., Kontoni, D-P.N., Mandal, S., Maiti, P.R., "Investigation of Seismic Design Parameters in Irregular Reinforced Concrete Buildings with Masonry Infills". Proceedings Advances in Structural Mechanics and Applications. *Structural Integrity (Springer)*, 27, 2021. (SCI & SCOPUS)
- Shendkar, M.R., Pradeep Kumar, R. and Maiti, P.R., "Effect of Aspect Ratio on Response Reduction Factor of RC framed structures with Semi-interlocked masonry and Unreinforced masonry infill", *Indian Concrete Journal*, 94(12), pp: 7-16, (SCOPUS)
- Mandal, S., Shendkar, M.R. "Evaluation of response reduction factor of RC-infilled frames", Proceedings of the 17th World Conference on Earthquake Engineering (17WCEE), Sendai, Japan, pp.1-12, 2020.
- Shendkar, M.R., Kontoni, D-P.N., Mandal, S., Maiti, P.R. and Gautam, D. (2021) "Effect of lintel beam on seismic response of reinforced concrete buildings with semiinterlocked and unreinforced brick masonry infills", *Infrastructures*, 6(1)6, pp:1-18, 2020. (SCOPUS, ESCI)
- Shendkar, M.R., Pradeep Kumar, R., Mandal, S., Maiti, P.R. and Kontoni, D-P.N., "Seismic Risk Assessment of Reinforced Concrete Buildings in Koyna-Warna Region through EDRI method", *Innovative Infrastructure Solution (Springer)*, Article:141, pp.1-25, 2021. (SCOPUS, ESCI)
- Shendkar, M.R., Beiraghi, H. and Mandal, S. "Effect of Irregularity on Seismic Design Parameters of RC-infilled Structures", *Magazine of Civil Engineering*, 108(8), pp.1-14, 2021, (SCOPUS, ESCI).
- Shendkar, M.R., Mandal, S., Pradeep Kumar, R. and Maiti, P.R., "Response reduction factor of RC-infilled frames by using different methods", *Indian Concrete Institute (ICI Journal)*. Apr-June 2020, pp:14-23, 2020.